



PLAN SUBMITTAL REQUIREMENTS – HIGH PILED AND RACK STORAGE

I Purpose

To advise architects, engineers and contractors what minimum information is required for plan review approval. All required information listed below shall be on the plans.

II Scope

The following requirements shall apply to all new buildings, tenant improvements, and building additions having rack, shelf, bin, solid piled, or pallet storage 12 feet or higher. For rack storage these requirements apply to all racks having the top rack at 8 feet or higher. The following are also classified as high piled/rack storage and require plan submittal:

- Idle (empty) plastic pallet storage over 4 feet
- Tire storage over 5 feet
- Group A plastics over 5 feet
- Idle wood pallet storage over 6 feet
- Rolled paper over 8 feet
- *Flammable/combustible liquids*

Not all requirements listed below apply to every submittal. If questions arise, contact the District plan reviewer to determine what information may not be required.

III References

CBC and CFC are in reference to the 2001 California Building Code and 2001 California Fire Code.

See NFPA 13 1-4.8 & 1-4.9 and CFC Article 81 for storage definitions.

III General

- A. Rack storage plans shall be submitted separately from architectural plans and therefore requires a separate application, permit number, and additional plan review fees.
- B. Plans will not be accepted for review until the plan review fee is paid in full. Fees include the initial review and resubmittals.
- C. The District's plan review turn around time is approximately 3 weeks.



- D. Plans may be “expedited” for an additional \$107/hour (based upon fee rate in effect 08/05). Expedites are completed on an overtime basis and their turnaround time is dependent upon the inspector’s off duty schedule. The reviewing inspector may be contacted after plan submittal to inquire about an anticipated completion date.
- E. Plans shall be wet stamped by the Engineer or Architect of Record.
- F. A minimum of two complete sets of plans shall be submitted each time plans are submitted or resubmitted.
- G. Once approved, an electronic copy of the floor plan with the rack locations shown shall be provided for pre-fire planning purposes. This file shall be in one of the following formats:

DWG (Applies to AutoCAD drawing file) – any AutoCAD DWG version is accepted.

DXF (Drawing Interchange file) – any DXF version is accepted.

IV The following information shall be provided on the plans:

- A. Floor plan of building showing location and square footage of all storage areas. Square footage of storage area includes the actual square feet of the racks as well as the aisles between the racks and 15 feet beyond the racks when racks border non-storage areas.
- B. Location and dimensions of fire access doors. CFC 8102.6.2
- C. Commodity classification of all items stored. CFC 8101.4 & NFPA 13 Table A-2-2.3
- D. Packing arrangement (i.e.) indicate if items are encapsulated or packaged in cardboard or foam.
- E. Detail showing dimensions of racks, number of tiers, and whether they are single, double, or multiple row racks.
- F. Detail showing transversal and longitudinal flue spaces. CFC 8104.3
- G. Indicate if solid shelving will be used.
- H. Aisle widths between racks. CFC 8102.10
- I. Storage height (storage height is the height of the top rack plus four feet)
- J. Clearance (distance) from top of storage to sprinkler deflector. NFPA 13
- K. Location of small hose stations, along with length and diameter of hose lines. CFC 8102.9
- L. Design density of sprinkler system. NFPA 13
- M. Type of fire detection system (smoke or heat detection) protecting the storage area.



FIRE DEPARTMENT

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- N. Any items such as exit signs and emergency illumination that are deferred because their placement is dependent upon rack location shall be shown.
- O. If in-rack sprinklers are installed, indicate the number of levels of sprinklers, head spacing, and head temperature.
- P. Floor plan showing smoke vent locations and dimensions. CFC 8102.7
- Q. Smoke vent area to floor area ratio calculations. Table 81-B
- R. Temperature rating of smoke vent fusible links and a note indicating that smoke vents shall be automatic and manually operated.
- S. Floor plan showing location, depth and dimensions of curtain boards. CFC 8102.8
- T. Indicate if storage area is accessible to the public. CFC Table 81-A

V The following apply to Resubmittals:

- A. All changes shall be clouded and indicated with a delta that has a corresponding revision number and date.
- B. Plan review comments shall be addressed in a separate letter specifically addressing plan review comments.
- C. Indicate how the plan review comment was addressed and on what sheet the change or correction was made.
- D. All plan review comments must be addressed in order for plans to be approved. If there are any questions regarding code interpretation or the applicability of the code section cited, contact the District plan reviewer to discuss the issue prior to resubmittal.